

WHAT IS CLAIMED IS:

1. An information distribution server comprising:
fragment data generation means for generating fragment
data with respect to a certain data aggregate that is one of a
plurality of data aggregates using a coded matrix, wherein the
fragment data is capable of restoring the certain data aggregate
based on the coded matrix when the fragment data is collected to
a required count;

code provision means for providing the fragment data
generated by the fragment data generation means with an
identification code associated with the certain data aggregate
restored by the fragment data; and

transmission means for transmitting the fragment data
having the identification code provided by the code provision
means to a transmission channel.

2. The information distribution server of Claim 1,
wherein the transmission means transmits, to the
transmission channel at a same frequency, each fragment data
that is generated by the fragment data generation means with
respect to each of the plurality of data aggregates and is
provided with each identification code by the code provision
means.

3. The information distribution server of Claim 1,
wherein the fragment data generation means rearranges a
transmission sequence of the generated fragment data using a
random number table.

4. The information distribution server of Claim 1,
wherein the plurality of data aggregates includes:
a digest data aggregate including digest information;
and

a detailed data aggregate including detailed information
whose category is equal to that of the digest information.

5. The information distribution server of Claim 1,
wherein the plurality of data aggregates includes an
emergency data aggregate including emergency information, and
wherein the code provision means provides a specified
identification code indicative of the emergency information to
fragment data generated by the fragment data generation means
from the emergency data aggregate.

6. A reception terminal communicating with an
information distribution server including:

fragment data generation means for generating fragment
data with respect to a certain data aggregate that is one of a
plurality of data aggregates using a coded matrix, wherein the
fragment data is capable of restoring the certain data aggregate
based on the coded matrix when the fragment data is collected to
a required count;

code provision means for providing the fragment data
generated by the fragment data generation means with an
identification code associated with the certain data aggregate
restored by the fragment data; and

transmission means for transmitting the fragment data
having the identification code provided by the code provision
means to the reception terminal,

the reception terminal comprising:

reception means for receiving the fragment data transmitted from the information distribution server; and

restoration means for distinguishing the fragment data received by the reception means based on the identification code provided to the fragment data and restoring the certain data aggregate based on the coded matrix.

7. The reception terminal of Claim 6,

wherein the fragment data generation means rearranges a transmission sequence of the generated fragment data using a random number table, and

wherein the restoration means restores the certain data aggregate based on the coded matrix and the random number table.

8. The reception terminal of Claim 6,

wherein the plurality of data aggregates includes a digest data aggregate including digest information and a detailed data aggregate including detailed information whose category is equal to that of the digest information, and

wherein the reception means receives both fragment data generated from the digest data aggregate and fragment data generated from the detailed data aggregate.

9. The reception terminal of Claim 8, further comprising:

detection means for detecting a traveling speed of the reception terminal itself,

wherein, when the traveling speed detected by the speed detection means is not smaller than a specified value, the

reception means receives the fragment data generated from the digest data aggregate, and

wherein, when the traveling speed is smaller than the specified value, the reception means receives the fragment data generated from the detailed data aggregate.

10. The reception terminal of Claim 6,

wherein the plurality of data aggregates includes an emergency data aggregate including emergency information,

wherein the code provision means of the information distribution server provides a specified identification code indicative of the emergency information to fragment data generated by the fragment data generation means from the emergency data aggregate, and

wherein the reception means receives by priority the fragment data provided with the specified identification code indicative of the emergency information from the information distribution server.

11. An information distribution system including an information distribution server as a first apparatus, a reservation server as a second apparatus, a reservation terminal as a third apparatus, and a reception terminal as a fourth apparatus,

wherein the information distribution server comprises:

first reception means for receiving certain information specifying a data aggregate, an identification code, and a coded matrix from the reservation server;

first fragment data generation means for generating fragment data with respect to the data aggregate specified by

the certain information received by the first reception means by using the coded matrix specified by the certain information received by the first reception means, wherein the fragment data is capable of restoring the data aggregate based on the coded matrix when the fragment data is collected to a required count;

first code provision means for providing the fragment data generated by the first fragment data generation means with the identification code specified by the certain information received by the first reception means; and

first transmission means for transmitting the fragment data having the identification code provided by the first code provision means to the reception terminal,

wherein the reservation server comprises:

second reception means for receiving a request to transmit the data aggregate from the reservation terminal; and

second transmission means for transmitting the certain information specifying the data aggregate, the identification code, and the coded matrix to the information distribution server based on reception of the second reception means, and for transmitting given information specifying the identification code and the coded matrix to the reservation terminal based on reception of the second reception means,

wherein the reservation terminal comprises:

third transmission means for transmitting the request to transmit the data aggregate to the reservation server;

third reception means for receiving the given information specifying the identification code and the coded matrix from the reservation server; and

third additional transmission means for transmitting the given information specifying the identification code and the

coded matrix received by the third reception means to the reception terminal, and

wherein the reception terminal comprises:

fourth reception means for receiving the given information identifying the identification code and the coded matrix transmitted from the reservation terminal, and for receiving the fragment data having the identification code transmitted from the information distribution server based on the identification code specified by the given information received from the reservation terminal; and

fourth restoration means for restoring the data aggregate from the fragment data having the identification code received by the fourth reception means based on the coded matrix specified by the given information received by the fourth reception means.

12. An information distribution system of Claim 11,
wherein the first reception means receives the certain information specifying the data aggregate, the identification code, the coded matrix, and a random number table from the information distribution server,

wherein the first transmission means uses the random number table, which is specified by the certain information received by the first reception means, to change a transmission sequence of the fragment data having the identification code provided by the code provision means before transmitting the fragment data to the reception terminal,

wherein the second transmission means transmits the certain information specifying the data aggregate, the identification code, the coded matrix, and the random number

table to the information distribution server based on the reception of the second reception means,

wherein the second transmission means transmits the given information specifying the identification code, the coded matrix, and the random number table to the reservation terminal based on the reception of the second reception means,

wherein the third reception means receives the given information specifying the identification code, the coded matrix, and the random number table from the reservation server,

wherein the third additional transmission means transmits the given information specifying the identification code, the coded matrix, and the random number table received by the third reception means to the reception terminal,

wherein the fourth reception means receives the given information specifying the identification code, the coded matrix, and the random number table from the reception terminal, and

wherein the fourth restoration means restores the data aggregate based on the coded matrix and the random number table specified by the given information received by the fourth reception means.

13. The information distribution system of Claim 12,

wherein the coded matrix and the random number table are varied depending on whether the data aggregate is publicly distributed or is distributed to only a contractor.

14. The information distribution system of Claim 12,

wherein information specifying the coded matrix included in the certain information and the given information corresponds to information about which coded matrix to use,

wherein information specifying the random number table included in the certain information and the given information corresponds to information about which random number table to use,

wherein the first fragment data generation means of the information distribution server generates the fragment data using the coded matrix and the random number table, which are already stored in the information distribution server, based on the certain information, and

wherein the fourth restoration means of the reception terminal restores the data aggregate using the coded matrix and the random number table, which are already stored in the reception terminal, based on the given information.

15. The information distribution system of Claim 11, wherein, when the second reception means receives the request from the reservation terminal, the second transmission means transmits the certain information specifying the data aggregate, the identification code, and the coded matrix only to the information distribution server that is near a position of the reservation terminal.

16. An information distribution server provided in an information distribution system including a reservation server, the information distribution server comprising:

first reception means for receiving certain information specifying a data aggregate, an identification code, and a coded matrix from the reservation server;

first fragment data generation means for generating fragment data with respect to the data aggregate specified by

the certain information received by the first reception means by using the coded matrix specified by the certain information received by the first reception means, wherein the fragment data is capable of restoring the data aggregate based on the coded matrix when the fragment data is collected to a required count;

first code provision means for providing the fragment data generated by the first fragment data generation means with the identification code specified by the certain information received by the first reception means; and

first transmission means for transmitting the fragment data having the identification code provided by the first code provision means.

17. A reservation server provided in an information distribution system including a reservation terminal and an information distribution server, the reservation server comprising:

second reception means for receiving a request to transmit a data aggregate from the reservation terminal; and

second transmission means for transmitting certain information specifying the data aggregate, an identification code, and a coded matrix to the information distribution server based on reception of the second reception means, and for transmitting given information specifying the identification code and the coded matrix to the reservation terminal based on reception of the second reception means.

18. A reservation terminal provided in an information distribution system including a reservation server and a reception terminal, the reservation terminal comprising:

third transmission means for transmitting a request to transmit a data aggregate to the reservation server;

third reception means for receiving given information specifying an identification code and a coded matrix from the reservation server; and

third additional transmission means for transmitting the given information specifying the identification code and the coded matrix received by the third reception means to the reception terminal.

19. A reception terminal provided in an information distribution system including an information distribution server and a reservation terminal, the reception terminal comprising:

fourth reception means for receiving given information identifying an identification code and a coded matrix transmitted from the reservation terminal, and for receiving fragment data having the identification code transmitted from the information distribution server; and

fourth restoration means for restoring a data aggregate from the fragment data having the identification code received by the fourth reception means based on the coded matrix specified by the given information received by the fourth reception means.